

REMARKS

Claims 1 – 3, 4, 5, 7, 9 – 17, and 19 - 28 are pending. Claims 1, 4, 5, 7, 9, 10, and 13 have been amended. Fig. 5 supports the amendment to claim 1. Claims 3 and 8 have been cancelled. The subject matter of claims 3 and 8 has been incorporated into claim 1. Claims 6 and 18 were cancelled because their subject matter was deemed to be superfluous. New claims 22 - 28 have been added to more precisely recite various novel features of the invention. Fig. 6 supports new claim 26. No new matter has been added by this amendment

The specification has been amended to reflect the status of the related U.S. Application. In addition, proposed drawings are submitted herewith in response to the Examiner's objection to the drawings.

Applicant notes with appreciation that claims 10 -21 have been allowed by the Examiner. Applicants believe that the remaining claims are allowable for the reasons stated below.

I. **CLAIMS 1, 2, 6 AND 7 ARE NOT ANTICIPATED BY HEARD UNDER 35 USC 102(b)**

Claims 1, 2, 6 and 7 were rejected under 35 USC 102(b) as anticipated by Heard. Claim 6 has been cancelled herewith, and will not be discussed further. This rejection is traversed for the reasons set forth below.

Claim 1 recites a wafer storage chamber having “a wall structure extending from the base , said wafer structure having a draft angle”. Heard does not anticipate claims 1, 2, and 7 because his wall structure lacks a draft angle. In addition, Heard discloses a container having a wider storage area than the steel coil that will be stored therein. Such a wider storage area allows the steel coil to expand. The larger width of Heard’s container would cause any wafer elements stored therein to move around within the container. The Heard container would thus damage the wafer elements rather than restrict their movement. Consequently, Heard fails to teach each and every element recited in claim 1. It is therefore submitted that

claim 1 and all claims dependent thereon are novel and non-obvious. Accordingly, the Examiner is requested to withdraw the §102 rejection of claims 1, 2, and 7 over Heard.

II. CLAIMS 1 AND 2 ARE NOT ANTICIPATED BY KOSUGI ET AL. (KOSUGI)

Claims 1 and 2 stand rejected under 35 USC 102(b) over Kosugi. This rejection is respectfully traversed.

Kosugi discloses a container for holding a reticle or a mask. Kosugi fails to teach or suggest a wall structure having a draft angle as recited in claims 1 and 2. Accordingly, the Examiner is respectfully requested to withdraw the rejection of claims 1 and 2.

Insofar as Kosugi may be applied against new claims 22 – 26, Claim 22 also recites “a wall structure having a draft angle” which is absent in Kosugi. Claims 26 – 28 recite a cylindrical cover that is also absent from Kosugi. Therefore, it is submitted that all of the new claims are also allowable over Kosugi.

III. CLAIMS 1 – 9 ARE NON-OBVIOUS OVER RPA IN VIEW OF HEARD

Claims 1 – 9 stand rejected under 35 USC 103 over the Related Prior Art (RPA) in view of Heard. This rejection is respectfully traversed.

RPA fails to teach or suggest the use of columns to restrict the lateral movement of the wafers. In addition, RPA fails to teach a wafer area having a specific diameter, wherein each portion of the wafer area has said specific diameter throughout the height of the storage chamber.

Heard fails to remedy the deficiencies of Related Prior Art. Heard discloses a Tape Dispensing Pack with an axial opening for an operator to hold the container on his arm. The Tape Dispensing Pack has a gap that is wider than the steel coil to allow the coil to expand. Such expansion means that there will be inevitable lateral movement of the coil (col.2, lines 44- 47). In fact, Heard’s container is made up of two moldings that interlock to accommodate steel coils of variable widths. (*Note*, col. 1, lines 34, 35 and 43 – 48.) Storing a wafer stack in an area that is wider than the wafers would cause misalignment of the stack

and movement of the wafers within their container. Consequently, Heard's container is inappropriate for storing a stack of wafer elements.

Heard's container stores a coil of steel tape that acts like a spring. The steel coil expands laterally during storage to fit the annular gap between the inner wall 16 and the outer wall 18. Accordingly, columns 22 do not restrict lateral movement as the steel coil naturally expands to fill the gap between walls 16 and 18.

The purpose for the columns in the Tape Dispensing Pack is to reduce friction between the tape and the pack so that an operator can easily withdraw tape through an aperture. This purpose is significantly different from the present invention. The present invention incorporates columns in a wafer container to restrict the movement of wafers.

There is no need to reduce friction in RPA, and thus no need for adding columns to the related art containers. The skilled artisan would only consider adding columns to the RPA if he had a copy of Applicant's disclosure in front of him. However, obviousness should not be determined by considering Applicant's own inventive disclosure as part of the prior art.

Heard is not concerned with restricting lateral movement of a stack of wafer elements. (See page 4, specification.) Heard's tape pack is simply not pertinent to the Related Prior Art (RPA). Moreover, it is well established that in order to rely on a reference as a basis for rejection of an invention, the reference must be reasonably pertinent to the particular problem with which the inventor was concerned. *See In re Oetiker*, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). Therefore, Heard constitutes non-analogous art. Accordingly, Applicants respectfully request the Examiner to withdraw the 103 rejection of claims 1 -9 over RPA in view of Heard.

IV. CLAIMS 22- 28 ARE NOVEL AND NON-OBVIOUS OVER THE PRIOR ART

New claims 22 – 25 are also allowable because the combination of RPA and Heard fail to suggest “a plurality of columns orthogonal to the base and formed on the wall structure, wherein an equal clearance exists between each column and the stack at any point along the periphery of the stack”. RPA has a draft angle that introduces “a gradual increase

in space 30 between the wafers and the wall as the stack is increased in height, and thereby allowing wafer movement. The wafers can be chipped or scratched as a result of movement in the container....” (See Specification, paragraph bridging pages 1 and 2.) Applicants discovered a way to restrict movement of wafer elements during storage by incorporating columns in a container having a draft angle. Heard would not motivate a skilled artisan to include columns in RPA, since Heard does not suggest using columns to restrict the movement of the contents of his container, or to restrict the movement of a stack of wafer elements in a container. In addition, by requiring a wider area than the steel coil width, Heard teaches away from storing material within his container “wherein an equal clearance exists between each column and the stack at any point along the periphery of the stack” as recited in claim 22. Therefore, Applicants submit that RPA and Heard would not render the invention of claims 22 – 25 obvious.

New claims 26 – 28 are allowable because the combination of RPA and Heard do not teach or suggest “a cylindrical cover having a continuous wall structure” or “a storage chamber . . . that engages with the cover to completely enclose a stack of wafer elements”. Heard’s tape dispenser must include an aperture to allow an operator to easily unwind tape from the tape dispenser. Fig. 2 in Heard illustrates exposed tape protruding from the aperture. Heard is concerned with reducing friction to allow a portion of tape to be removed from the side aperture. It is undesirable to incorporate an aperture in RPA since any incomplete enclosure will cause debris to enter into the chamber and damage the wafers stored therein. If the skilled artisan adopted Heard’s teachings, the wafers in RPA would become damaged. Consequently, one would not expect the skilled artisan to have consulted Heard’s Tape Dispensing Patent in order to render the RPA wafer container unsuitable for storing wafer elements. Since Heard pertains to non-analogous art, the 35 USC 103(a) rejection is inappropriate. Therefore, Applicant respectfully requests that the 103(a) rejection of claims 1-9 be withdrawn.

IV. CONCLUSION

All of the issues raised by the Examiner have been addressed by this response. Due to the lack of similarity between Heard's container and RPA's container, it is submitted that Heard constitutes non-analogous art. Therefore, the rejections based on Heard should be withdrawn. The Examiner is encouraged to contact the undersigned if any questions or concerns regarding this application remain.

Respectfully submitted,



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DRAWING OBJECTIONS

Applicants submit herewith proposed drawing corrections in response to the Examiner's objection to the use of A-A and B-B in the Figures. Arabic numerals have now been used to designate sectional views. No new matter has been introduced by these changes.